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DEPARTMENT OF NATURAL RESOURCES

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Division of Oil, Gas and Mining

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6295

November 25, 2014

John Spencer
Simplot Phosphates, LLC
9401 North Highway 191
Vernal, Utah 84078-7802

Subject: Initial Review of Revised Notice of Intention to Commence Large Mining Operations, Simplot Phosphates LLC, Vernal Phosphate Mine, M/047/0007, Uintah County, Utah

Dear Mr. Spencer:

The Division of Oil, gas and Mining has reviewed the referenced revised Notice of Intention to Commence Large Mining Operations (NOI) which was received October 21, 2014. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages using **redline and strikeout** text. After the NOI is determined technically complete, the Division will ask that you submit two clean copies of the complete and corrected plan. Upon final approval, both copies will be stamped approved, and one will be returned for your records.

The Division has the following general comments:

- The submittal should be formatted to easily incorporate additional revisions and amendments.
- The Division may have additional comments based on the review responses.

The Division will suspend further review receiving your response to this letter. Please contact April Abate at 801-538-5214 or me at 801-538-5261 if you have questions about the comments or if you would like to arrange a meeting to discuss them. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker
Minerals Program Manager

PBB: aa: eb
Attachment: Review
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**INITIAL REVIEW OF NOTICE OF INTENTION
TO COMMENCE LARGE MINING OPERATIONS**

Simplot Phosphates, LLC
Vernal Phosphate Mine
M/047/0007
November 25, 2014

General Comments:

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
1	General	The Division may have additional comments based on the responses to the issues raised in this review. For example, the Division anticipates receiving the Geomechanical report. It is not clear if a variance is needed as there is no discussion regarding maximum slope angles in the current text. There are comments below regarding the request for a variance, but there are no clear statements regarding slope angles and stability to indicate whether a variance is actually needed.	lah	
2	Appendix F	Please include a copy of the approval from the Division of Water Rights for the tailings storage facility (TSF).	lah	

R647-4-101 - Filing Requirements and Review Procedures

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
3	General	This submittal represents an update to the existing NOI as well as a 585-acre expansion. It is likely this will be considered a revision with a requirement for public notice.	aa	

R647-4-105 - Maps, Drawings & Photographs

General Map Comments

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
4	Base Map	Most of the maps are either printed on 8½" x 11" or 11" x 17" sheets. Given the size of the project, most of the maps should be 24" x 36" or similar size to show enough detail and relationship from one site to another.	whw	
5	Base Maps	Please clearly show the boundaries of the disturbed area. This is defined in the rules the surface land disturbed by mining operations.	whw	
6	Base Maps	Please indicate those areas that are currently bonded, those areas where partial and full bond release have occurred, and approximate dates when bond release occurred.	whw	

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
7	Figure 3A	The legend symbols for “2013 Fully Reclaimed” and “Previously Reclaimed, Not Released” are too similar and cannot be easily distinguished on the map. Please change one of the symbols.	aa	
8	Figure 3B	Same comment as above.	aa	
9	Figure 3D	The legend denotes a “Previously Disturbed” area, but it could not be located on the map.	aa	
10	Omission	The TSF, the water catchment pond, and a landfill within the permit boundary in Section 31, Township 12 South, Range 22 East, and the locations of topsoil stockpiles were not labeled on any of the maps.	aa	
11	Omission	Please provide cross sections and engineering design diagrams for the TSF. The Division is aware this facility would have been approved by the Division of Water Rights, but any future expansion or modification of the tailings dams may necessitate review of these designs.	aa	

105.1 - Topographic base map, boundaries, pre-act disturbance

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
12	Figure 4a & 4b Topographic Maps	As outlined in Section R647-4-105.1.12, please state on the map or in the text if any of the following occur: bodies of water, roads, buildings, landing strips, electrical transmission lines, water wells, oil and gas pipelines, existing wells, boreholes and other existing surface or subsurface facilities within 500 feet of the proposed mining operation.	whw	
13	Figures 4a, 4b, and 8 Topographic Maps	Please have a line type that represents roads on the base maps. The Division needs to know what roads existed before mining so it can determine what type of reclamation is needed.	whw	
14	R647-4-105.1.14 Base Maps	Please show on the base maps or in the text as outlined in R64704-105.1.14 areas of previously mined or explored areas for which the Operator is not responsible for reclamation. If no areas exist please so state in the text.	whw	

105.2 - Surface facilities map

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
15	Fig. 5 a-b	The surface facilities map will be evaluated as part of the bond calculations. (No response needed.)	whw	
16	Fig. 5 a-b	Please include all paved roads, all unpaved roads and pipelines on maps of the surface.	whw	
17	Figure 5c	This figure was discussed in the text but not provided.	aa	

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
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Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
18	Figure 8	Figure is hard to read due to the print size. In the next submittal please print on 11" x 17" or larger sheets. The southern boundary of the map could be clipped (along with associated stratigraphy).	lah	
19	Figure 8	Include the structural data on the map. At a minimum include strike and dip (as noted in the text) and any other structural geologic features that apply, such as fold axis and secondary folds, faults and/or joint sets. Please use standard USGS symbols.	lah	
20	Figure 9	Please add color (at the proper transparency) to match Figure 8.	lah	
21	Figure 10	Please indicate the locations of haul roads and secondary roads.	aa	
22	Figure 10	There were two "Phase 1" areas on the map. The second one farther to the east did not show the panel details for the 10-year mine plan.	aa	
23	Omission	Please include cross sections of slopes, roads and pads at time of reclamation.	whw	

R647-4-106 - Operation Plan

106.3 - Estimated acreages disturbed, reclaimed, annually/sequentially

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
24	Pg. 8	Paragraph 2 states that mining on the west side will continue through 2017 and refers to Figure 3c. Figure 3c does not show the mining sequence thru 2017. The figure should be updated in a similar fashion to Figure 10, so the west side mining sequence is clearer.	aa	

106.7 - Existing vegetation - species and amount

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
25	Appendix C	The vegetation report does not report average ground cover. It does provide a range for shrub cover and undergrowth cover for each of the three sites, but the average ground cover cannot be calculated from the data presented. Apparently, when data was collected for each major life form, there was no consideration for overlap. Please provide a summary sheet that shows the average ground cover (aerial projection of living vegetation) for each of the three vegetation communities that were identified.	lk	

106.8 - Depth to groundwater, extent of overburden, geologic setting

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
26	Page 10 and 11	Due to lack of data, it is not clear on the geology map if the structural components of the geology are the same in the east expansion area. If the structural geology is the same on the east expansion, please note this in the text. If the structural geology varies in the east expansion area, add verbiage in the text to note the differences.	lah	
27	General	There are several references throughout the document where the geologic formation Weber Sandstone is referred to as the Weber Quartzite. For consistency, please replace the terminology so that all terms reference the Weber Sandstone.	aa	

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
28	Omission	The narrative does not address the depths to groundwater in the existing on-site groundwater monitoring wells. The only information given is the screened interval depths. It would be helpful to compile all data from the 16 wells into a table format to show in which formations each well is screened, collar elevations, and depth to groundwater data illustrating seasonal variations. A data table in the Groundwater Discharge Permit (Appendix F) was noted. This table could be modified to show the depth to water data in order to meet the requirements of this rule.	aa	
29	Omission	More detail is needed to address the extent of overburden in the permit area, such as the average thickness of overburden and whether it varies in different parts of the permit area.	aa	

106.9 - Location & size of ore and waste piles, tailings, ponds

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
30	Page 12	Please include in the text a few sentences about the TSF regarding approvals from Water Rights (Dam Safety), include supporting data in Appendix F.	lah	
31	Page 12	Paragraphs regarding blasting should probably be include under public safety, R647-4-109.4, but nonetheless, please include commitments to follow MSHA blasting regulations and national standards for vibration limits.	lah	

R647-4-109 - Impact Assessment

109.1 – Projected impacts to surface & groundwater systems

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
32	Pg. 14	The text indicates limited sampling has occurred on Big Brush Creek and references a 1999 BLM report. This statement conflicts with the Groundwater Discharge Permit which states that Big Brush Creek has two locations that are sampled on a quarterly basis. Please make the appropriate correction.	aa	

109.2 – Potential impacts to threatened & endangered wildlife/habitat

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
33		The Division suggests that the NOI include a brief description and summary of projects that have been undertaken or completed (both within the permit area as well as those in close proximity to the permit area) to enhance or create habitat for the greater sage grouse.	lk	

109.4 – Projected impacts on slope stability, erosion control, air quality, public health and safety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
34	Page 19 -20	More detail is needed in the text regarding the “roughened highwall surface slopes” for long term stability. The text should discuss actual maximum slope angles and specific design details.	lah	
35	Page 19-20	A few typos and syntax errors were noted in this section.	aa	

R647-4-110 - Reclamation Plan

110.2 – Reclamation of roads, highwalls, slopes, impoundments, drainages, pits, piles, shafts, adits, etc

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
36	Page 22	More detailed verbiage concerning slope angles is needed in the text to support the variance requested under section R647-4-112. (See detail comment under R647-4-112 below).	lah	
37	Pg. 23	The plan does not include a final reclamation plan for the TSF. The Division recognizes that concurrent reclamation is not feasible due to the continuous use of the tailings pond for the life of the mine, but the TSF has to be designed with an end point in mind and a reclamation plan. Please include a final plan showing the engineering details of the TSF closure plan.	aa	
38	Omission	Similar to the TSF, there was no information provided on a final reclamation plan for the on-site landfill or the catchment pond.	aa	
39	Omission	A post-mining storm water management plan for both the east and west side disturbance areas is required.	aa	
40	Omission	Please include maps and cross sections of highwall areas before, during, and after (reclaimed) operations.	whw	

110.3 - Facilities to be left for post mining use (buildings, utilities, roads, pads, ponds, pits, equipment, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
41	Omission	Please show what roads will be left at the time of final reclamation. Please state how the pipeline will be reclaimed. The NOI does not include reclamation maps.	whw	

110.5 - Revegetation planting program

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
42	Page 26	The seed mix for reclamation should be adjusted. The Division recommends the following changes: Reduce the seeding rates for hycrest crested wheatgrass from 2.0 pounds/acre (pure live seed, pls) to 0.5 pounds/acre (pls), Ladak alfalfa from 1.0 pounds/acre to 0.5 pounds/acre, and whitestem rubber rabbitbrush from 0.5 pounds/acre to 0.25 pounds/acre, and add Lewis flax at 1.0 lbpounds/acre and western yarrow at 0.1 pounds/acre. Please note that this seed mix is repeated in both the vegetation report (appendix C) and the soils report (appendix D).	lk	

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
43		The revegetation plan indicates that the seed mix will be drill seeded. Wyoming big sage, forage kochia and western yarrow should be broadcast seeded (drilling places these seeds too deep in the soil for germination and establishment). They can be seeded with a drill provided the seed is put in a separate box and the drop tubes are pulled so that as the seed is placed on the surface. Please make this clear in the reclamation plan.	lk	
44	Tables K-1 and K-2	These tables also include seed mixes for revegetation. It is likely that these mixes were proposed or used for early revegetation, and if so, they should be identified as such. Otherwise, they should be deleted from the NOI since there are several problems with using them for future revegetation. The seed mix listed in the NOI text on page 26 (with the recommended changes) should be used for all future reclamation.	lk	

R647-4-112 - Variance (List all variances requested and make a finding if approving.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
45		The NOI includes a variance request but does not include supporting data. The Division needs a Geomechanical report stamped by the engineer of record. The report needs to include clear recommendations regarding the factor of safety the operator will maintain. The report also needs to include the supporting documentation for the recommendations, including rock mechanics and phryateic information on both the east and west sides. The report needs to be included in an appendix of the NOI and must note either the similarity or differences in the east and west projects.	lah	
46		The NOI needs to show specifically what the variance(s) for highwalls are, how the highwalls do not meet the regulations, and why the proposed configuration is safe and stable.	whw	
47		The NOI needs to include cross sections that show the proposed configuration of highwalls where a variance is being requested and also the configuration of highwalls where no variance is required.	whw	

R647-4-113 – Surety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
48		Reclamation costs will need to be calculated based on the comments generated from this review. To assist in this process, the Division recommends using the cost worksheets for demolition, earthwork, and revegetation found on its website.	aa	